

June 27, 1966

Dear _____

Today I inadvertently mailed a progress report to _____ without binding them in their respective covers. The report was sent with cover letter signed _____ Would you be kind enough to staple the front and back covers which I have enclosed to the report. The report (two pages) was mailed today (June 27) via REGISTERED MAIL.

Thank you.

Very truly yours,

1 JUL 1966

June 27, 1966

Dear

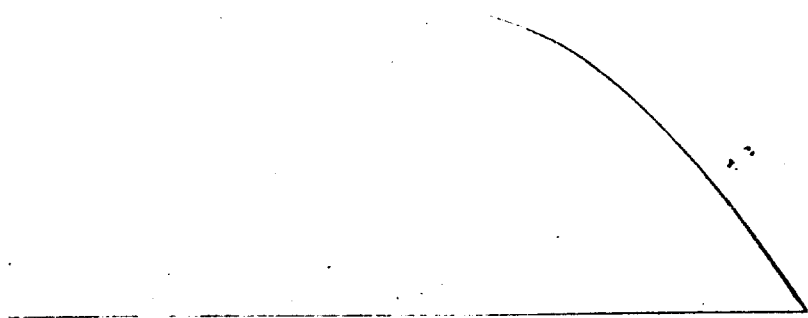
Enclosed is a short Progress Report of our work
to date pursuant to

Very truly yours,

FIRST PROGRESS REPORT

June 27, 1966

Contract No.



I. SUMMARY OF ACTIVITY TO THIS DATE

A. An initial survey was made of research and development in the field of implanted electronic devices and biological power sources.

1. Literature Consulted:

Star Index and NASA Documents available at the depository

The books Bio-Telemetry, Biomedical Telemetry, and Biomedical Sciences Instrumentation, v. 2

Proceedings of latest biomedical engineering conferences

The National Telemetering Conference in Boston, May 1966

Sponsor supplied Science Information Exchange Notices of Research Projects

Transactions: American Society for Artificial Internal Organs

2. Individuals Consulted:

Dr. [redacted]

Dr. [redacted]

Dr. [redacted]

B. A list of conceivable methods of power production was prepared based on the literature review and personal discussions. It is planned to evaluate the possibilities of each method and to report on research in each area. Quantitative power yield and problems specific to each method will be discussed. The list, still subject to modification, at present is as follows:

1. Energy from Neuromuscular potentials (EMG, EKG, Nerve Bundles)
2. Energy from Diffusion Potentials
3. Energy from Natural DC Potentials
4. Energy from Reduction-Oxidation Potentials

II. IMMEDIATE PLANS

- A. Several leading researchers have been selected for telephone inquiries in the near future.
- B. Present technology in semi-permeable membranes will be reviewed.
- C. A review of the present state of the art in mercury batteries and rechargeable nickel-cadmium batteries will be started immediately. This survey will allow a comparison of the power available from bioelectric sources with conventional batteries.